

FOLIO





Like so many other mornings, the final day of the Tours saw our fearless Tour Guides waiting in the mud for the school bus to arrive and the tours to begin.

Farewell To The Farm

On Friday 27 June, the 1980 Farm Tour Program officially came to an end. The program which began on 21 April, suffered a number of cancellations as a result of the inclement weather during the past month. In spite of it being the wettest year in the history of the Farm Tour Program, 8,963 children and 1,679 teachers and parents participated! The previously high record, set last year, was 6,406

children and 1,135 adults.

The Tour Program organized and administered by the Office of Community Relations owes a great deal of its success to the Department of Animal Science, the Farm Manager Hugh Campbell and all the farm staff for their continued encouragement, cooperation and assistance. As in past years these people were called upon to give their added assistance over and above the call of duty. This year the event that sticks out most prominently was a school bus stuck axle deep in a newly sodded field. Once again, everyone is grateful to the men who came to the rescue of the stricken bus and passengers.

The feedback to the Tours, from teachers, parents and children, attests to the value of the program, and the goodwill created within the greater Edmonton community through the cooperation of these two University bodies (Animal Science and Community Relations). The Tours enabled Edmonton school children to see a farm and domestic animals in real life. Seventy-five percent of the children who attend the tours had never been on a farm or touched a farm animal in their life. □

FOLIO

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All inquiries and correspondence should be directed to:

Folio
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The Office of Community Relations produces Folio on a weekly basis for the staff and other interested persons

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Children and chicks, shy at first meeting, greet each other with an experimental touch.



Our terrific tour guides, students Donna Rintoul and Jan Hagerman, seen pictured with a few of the men from the farm. From left to right are Mike McIntosh, Ed Maycher (Assistant Farm Manager), Jan, Donna and Bud Pringle. Since the girls worked out of the Feed Mill, Bud and Mike were the two fellows who greeted them without fail every morning and shared their joys and occasional disappointments daily over lunch.

Research Reporter

Nuclear Reactor Aids Animal Science

Animal husbandry has come a long way since mankind first took that important step towards civilization. Just how far is underlined by the fact that at the University of Alberta animal scientists routinely use the University's SLOWPOKE nuclear reactor.

And the procedure could readily find application in the meat-producing industry.

Developed by Dr. Michael Apps and graduate student John Kennelly, the procedure provides information about the digestibility of various feeds. Specifically, it is a measure of how much of a given food can be digested and how much passes through the digestive system as waste.

At first glance, it might seem that using a nuclear reactor for this would be comparable to using a helicopter to cross a street—undoubtedly effective but what's wrong with walking? However, a closer look at alternative approaches to digestibility calculation show them to be less attractive than might be thought.

The obvious approach would be simply to weigh all the feed an animal consumes and then all its fecal material. This is often done, but it involves measuring each animal's food and ensuring that no fecal material is lost; typically this involves keeping the animal in metabolic crates. Not only does this diverge from normal conditions, but it is very expensive, both because of the metabolic crates and the manpower requirements.

Another approach is to add to the feed a marker of some sort and then, using wet chemical analyses or other scientific techniques such as mass spectrometry, x-ray fluorescence or atomic absorption, determine its concentration in the

fecal material. These methods are used, but they have distinct disadvantages. The marker must be added to the feed supply in a volume which is sufficient to cause worries about possible physiological changes, and the procedures involved in sample analysis are fairly laborious. Moreover, in their passage through the intestines these markers tend to separate from the feed so that the uniformity of their distribution in the feces is open to question.

Yet another approach that has been taken involves radioactive markers. While this technique works well and is simple enough, it has its own drawbacks. The animal is lost—who's going to eat the meat of an animal fed radioactive feed—and there is the problem of disposing of radioactive waste.

The procedure developed by Dr. Apps and Mr. Kennelly has none of the disadvantages of other approaches. Using the University's SLOWPOKE reactor they are able to make digestibility measurements simply and quickly from random samples of fecal material, and there is no problem of radioactivity.

A graduate student in the Department of Animal Science, Mr. Kennelly was aware of the shortcomings of other methods of digestibility measurement, when he encountered activation analysis during his enrolment in Pharmacy 604, a University of Alberta course which features in-depth experimental work in radiopharmacy and bionucleonics. In conjunction with Brian Turner of the Department of Animal Science, he did preliminary work applying activation analysis to digestibility study. That work caught the attention of Dr. Michael Apps, an activation analysis specialist associated with the SLOWPOKE facility, and working together

Dr. Apps and Mr. Kennelly developed the procedure now being routinely used for swine digestibility studies.

While the idea of using activation analysis for digestibility studies has been around for about ten years, the University of Alberta work is the first to transform it into a routine procedure. And it is the first application for studies involving swine.

Activation analysis—or to give its full name, instrumental nuclear activation analysis—is a means of identifying the elemental composition of a substance by bombarding it with neutrons or other high energy particles. It is a non-destructive way to identify the elements of a substance and their amounts.

For digestibility studies, it is necessary that some non-digestible marker be added in a known proportion to the feedstuff. Activation analysis of a sample of fecal material clearly shows the concentration of the marker in the waste, making a quick calculation of digestibility possible. For example, if the feed was not all digestible the concentration of the marker in the fecal material would be the same as in the feed; if fifty percent of the feed was digestible the marker would be in twice the concentration in the fecal material.

For their studies, the University of Alberta researchers use markers from the scandium family of elements, chiefly dysprosium, cerium and samarium. These elements have the advantages of not being absorbed, not upsetting the digestive physiology, and readily attaching to the feedstuff. They need to be added to the feed at a parts-per-million level only—a hog's weekly feed would contain a quantity of marker approximately equal in size to the head of a pin.

Once the marker has been uniformly mixed into the feed supply, the animals can be fed with no concern as to individual consumption. Then grab samples of feed and fecal material are taken and when dry introduced into the SLOWPOKE reactor for analysis. No elaborate preparations are necessary, the material is simply placed inside a capsule and delivered into the heart of the reactor via a pneumatic system. A computer readout gives the elemental composition and amounts.

SLOWPOKE is an acronym derived from the description, "safe, low-power, critical, experiment." Ironically, SLOWPOKE is anything but slow for routine analysis. Currently the animal scientists book the reactor for four hours per week and do about 120 samples. Dr. Apps and Mr. Kennelly have begun work aimed at completely automating the digestibility analysis and calculate that up to 600 samples could be processed overnight.

Concurrently, the researchers are investigating different adaptations and applications of activation analysis to studies of animal digestion. In addition, work is being done applying SLOWPOKE's capabilities to other problems in animal science. Included is a project seeking information related to mineral status from activation analysis of an animal's hair.

The SLOWPOKE reactor is the only university reactor in Western Canada. Because of the initial interest of members of the Faculty of Pharmacy and Pharmaceutical Sciences it is located in that Faculty. It is, however, increasingly being used in collaboration with other scientists.

For more information telephone Dr. M.J. Apps (403) 432-2907 or 432-4978. □

Alberta Achievement Awards Program

Nominations are now being accepted for the 1980 awards under the Alberta Achievement Awards Program which is administered by Alberta Culture.

Individuals who have made an outstanding contribution in sports, sciences, the arts, community service, agriculture or other fields may be nominated.

The Achievement Awards Program is the only ongoing, comprehensive, provincial awards program of its kind in Canada. At last year's awards banquet and presentation ceremony in Calgary, a total of 199 awards were given out in three categories: performance, service and excellence.

Performance awards are given to Albertans who, as Alberta representatives, placed first in a sanctioned Canadian competition; or first, second or third in a sanctioned international compe-

tition, between 1 September 1979 and 31 August 1980. This applies to sport and non-sport competitions.

Service awards are given for individuals or groups who, in a voluntary capacity, have performed outstanding service for ten years or more, having national, provincial or wide regional impact.

Excellence awards are given to individuals or groups for exceptional contributions and/or achievements in a professional or occupational capacity at provincial, national or international levels.

The deadline for nominations is 3 September 1980. For nomination forms write: Government of Alberta, Alberta Achievement Awards Program, Alberta Culture, 14th Floor, CN Tower, Edmonton, Alberta T5J 0K5 or telephone: 427-8088. □

Physics Department Honors Top Students

John Trumpener of Strathcona Composite High School has won the first prize of \$500 for top marks in the annual physics prize exam for Alberta High School students set by the Canadian Association of Physicists. Three students tied for second place and each will receive a \$200 prize. They are Geoff Meredith of Lord Beaverbrook High School in Calgary, Robert Morewood of Medicine Hat High School and Chris Yakymyshyn of Louis St. Laurent High School in Edmonton. The prize winners were presented with their awards at a

luncheon given in their honor by the Physics Department at the University of Alberta. A total of 226 Alberta grade 12 students wrote the examination, which was set and marked by a committee of six University of Alberta professors under the chairmanship of Dr. F.L. Weichman. The large number of students writing this exam should provide some encouragement for the province, as indications for the future are that there will be an increasing need for competent young people in the physical and engineering sciences. □

people

R.L. Busch, East European Studies/Slavic Languages, presented a paper on "Osip Mandel'shtim's 'Mne Kholodno . . .'" and "Proslavim, brat'ia, sumerki svobody . . ." and another on "Narrative Ambiguity in L. Tolstoy's 'Kreutzer Sonata'" at Learned Societies, June 1980.

Wm. A. Preshing, Office of Community Relations, was elected to the Board of Directors of CASE (Council for the Advancement and Support of Education), District VIII.

T. Yedlin of the Division of East European Studies organized and chaired a panel on the topic: "Interdisciplinary courses: some problems and issues of instruction and literature," at the annual meeting of the Canadian Association of Slavists held in conjunction with the Meeting of the Learned Societies, June 1980, at the Université du Québec à Montréal.

Juliet McMaster, Professor of English, delivered a paper at a plenary session of the Association of Canadian University Teachers of English, at the meetings of the Learned Societies in Montreal in May. The paper was entitled "Pride and Prejudice: Acting by Design."

G. Hiruki, Professor of Plant Science, presented a paper at the Special Symposium entitled "Fastidious Prokaryotic Plant Pathogens." The symposium was held at the University of California, Davis, California, 22 to 27 June 1980, and was supported by the American Association for the Advancement of Science, the California Academy of Sciences and the American Phytopathological Society. Dr. Hiruki also was a speaker at the International Symposium on Virus

Diseases of Ornamental Plants organized by the German Phyto-medical Society.

Robert Stangeland, Professor and Chairman of the Department of Music, recently was elected to the Chairmanship of the Council of Member Schools of the Canadian University Music Society (formerly Canadian Association of University Schools of Music). In this role, Dr. Stangeland presides over representatives of the thirty-six member institutions who deal with academic standards within professional music programs and other matters of institutional concern.

Jay Bishop delivered a talk on his research on the watching styles five to nine year old children use when viewing TV, at the National Congress of the Association for Media and Technology in Canada held at the Macdonald Hotel on 17 June. Early findings and the implications for helping teachers and parents improve the watching skills of children were discussed.

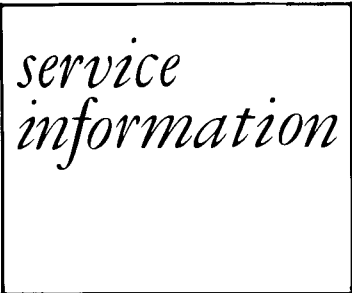
Karol Krotki, Professor of Sociology, organized and chaired a session on the "Westward Power Shift" in Montreal for the Canadian Sociology and Anthropology Association. He also presented a paper on language loyalties in Canada to the Canadian Population Society and sat on its panel on policy-oriented research.

Six members of the Department of Slavic Languages presented papers at the Canadian Association of Slavists' meeting in Montreal, to various sessions as follows: *R.L. Busch* (Russian Poetry Analysis), *K.T. Holden* (Slavic Linguistics), *P. Lynkowsky* (Ukrainian Syntax), *T.M.S. Priestly* (South Slavic Nations and Nationalities), *Y. Slavutych* (Soviet Linguistic Policy, and Ukrainian Shakespeare Society), *O. Zujewskyj* (Ukrainian Shakespeare Society).

Timothy D. Daus, a BA Special student in the Department of Anthropology and currently studying in Egypt, has been awarded a Research Fellowship by the American University in

Cairo to enable him to complete a further year of study there prior to his return to the University of Alberta.

Bruce Bain, Educational Psychology, conducted a workshop for parents in Beaumont for parents who wish to raise their children in two languages.



Information must reach the Editor by 9 a.m. on the Thursday prior to publication. Written notification is necessary.

Coming Events

Exhibitions

Rutherford Library Galleria Continuing. "Canada's West: Photographs from the University of Alberta Archives." A selection of historical photographs relating to Western Canada.

University Special Collections "Sing, Shining Republic! Highlights of American Poetry, 1809-1978." B37 Cameron Library.

Devonian Botanic Garden Plants in bloom during the third week of July: Aconitum, Cimicifuga, Codonopsis, Cynoglossum, Erygium, Filipendula, Hererocallis, Hosta, Ligularia, Lilium, Lythrum, Malva, Sedum, Veronica.

The Garden is open to the Public Monday to Friday, 10 a.m. to 6 p.m. Saturdays, Sundays and Holidays 1 p.m. to 6 p.m. During July and August, guided tours will be given at the following times: Wednesday, Thursday, Friday: 11 a.m., 1 p.m., 3 p.m. Saturday, Sunday: 1:30 p.m., 3 p.m., 4:30 p.m.

Department of Plant Science 16 July, 10 a.m. to 5 p.m. Field Day at Parkland University Farm.

Films

Edmonton Film Society "Screams for a Summer Night" Series 14 July, 7 p.m. "Halloween" (1978) 8:45 p.m. "Peeping Tom" (1960).

21 July, 7 p.m. "Martin" (1978) 8:45 p.m. "It's Alive" (1975) Tory Lecture Theatre. Series passes available at HUB, Woodward's.

Sports

Summer Recreation Program Department of Athletic Services Beginning in the third week in July and continuing to the end of the second week in August, a variety of summer activities have been planned by the Department of Athletic Services. The activities planned are archery, backpacking, fitness, golf, karate, orienteering, racquetball, social dance, squash, tennis, weight training, and competitive (slow pitch) softball. Registration for these activities will begin on 7 July and, as they are popular, early registration is advised. For more information, please telephone Spring and Summer Recreation at 432-3614 or visit the Men's Intramural

Office, W-79 Physical Education Centre. The Spring and Summer Recreation Office hours are Monday to Friday, 12 noon to 1 p.m. and 3:30 p.m. to 5 p.m.

Swimming Lessons Registrations are now being taken for the two remaining summer programs: 14 July - 25 July; 28 July - 8 August. For further information call 432-3570. Brochures are available at W1-34 and the pool office, Physical Education and Recreation Centre.

Art of Living Club 16 July, 8 p.m. See posters for topic or phone 483-8519. 158 SUB. West entrance.

Non-Credit Courses Students' Union

Students' Union Art and Craft Centre Summer Workshops 12 July, 9:30 a.m. to 4:30 p.m. Approaches to Drawing. Fee: \$26. Instructor: Kathy Watson. 19 July, 9:30 a.m. to 4:30 p.m. Glaze Decoration. Fee: \$26. Instructor: Greg Payce. Places are still available in these workshops. For more information phone 432-4547.

Department of Computing Services Introduction to the Michigan Interactive Data Analysis System (MIDAS) Date: 17 July. Time: 9:30 to 11:30 a.m. and 1:30 to 3:30 p.m. Fee: \$5. Minimum enrollment: 8. Class limit: 18. Prerequisite: "Introduction to Computing," or competence with MTS. Telephone: 432-2261.

University of Alberta Library Hours: Summer Session

Variations from these hours will be posted at library entrances. Effective 7 July 1980

| | Monday-Thursday | Friday | Saturday | Sunday |
|---------------------------------------|----------------------|----------------------|----------------------|----------------------|
| Cameron Library | | | | |
| Building open | 7:45 a.m.-10:00 p.m. | 7:45 a.m.- 5:30 p.m. | 1:00 p.m.- 5:00 p.m. | closed |
| Circulation Services | 8:30 a.m.- 6:15 p.m. | 8:30 a.m.- 5:15 p.m. | 1:00 p.m.- 4:45 p.m. | |
| Fines Collection | 8:00 a.m.- 4:00 p.m. | 8:00 a.m.- 4:00 p.m. | closed | |
| Government Publications | 8:30 a.m.- 5:00 p.m. | 8:30 a.m.- 5:00 p.m. | closed | |
| Health Sciences | 8:30 a.m.- 5:00 p.m. | 8:30 a.m.- 5:00 p.m. | no service | |
| Interlibrary Loans | 8:30 a.m.- 4:30 p.m. | 8:30 a.m.- 4:30 p.m. | closed | |
| Micromaterials | 8:30 a.m.- 4:30 p.m. | 8:30 a.m.- 4:30 p.m. | closed | |
| Photoduplication | 8:00 a.m.-12:00 noon | 8:00 a.m.-12:00 noon | closed | |
| | 1:00 p.m.- 4:00 p.m. | 1:00 p.m.- 4:00 p.m. | | |
| Reserve Reading Room | 9:00 a.m.- 5:00 p.m. | 9:00 a.m.- 5:00 p.m. | closed | |
| Science | 8:30 a.m.- 5:00 p.m. | 8:30 a.m.- 5:00 p.m. | no service | |
| Special Collections | 8:30 a.m.- 4:30 p.m. | 8:30 a.m.- 4:30 p.m. | closed | |
| Undergraduate | 8:30 a.m.- 4:30 p.m. | 8:30 a.m.- 4:30 p.m. | no service | |
| Herbert T. Coutts (Education) Library | | | | |
| Building open | 8:30 a.m.- 9:00 p.m. | 8:30 a.m.- 5:30 p.m. | 1:00 p.m.- 5:00 p.m. | 1:00 p.m.- 5:00 p.m. |
| Circulation Services | 8:30 a.m.- 8:45 p.m. | 8:30 a.m.- 5:15 p.m. | 1:00 p.m.- 4:45 p.m. | 1:00 p.m.- 4:45 p.m. |
| Reference Services | 8:30 a.m.- 9:00 p.m. | 8:30 a.m.- 5:00 p.m. | 1:00 p.m.- 5:00 p.m. | 1:00 p.m.- 5:00 p.m. |
| Reserve Room | 8:30 a.m.- 8:45 p.m. | 8:30 a.m.- 5:15 p.m. | 1:00 p.m.- 4:45 p.m. | closed |
| Curriculum Library | 8:30 a.m.- 9:00 p.m. | 8:30 a.m.- 5:00 p.m. | 1:00 p.m.- 5:00 p.m. | 1:00 p.m.- 5:00 p.m. |
| Law Library | 8:30 a.m.- 5:00 p.m. | 8:30 a.m.- 5:00 p.m. | closed | closed |
| Mathematics Library | 8:30 a.m.-12:00 noon | 8:30 a.m.-12:00 noon | closed | closed |
| | 1:00 p.m.- 4:00 p.m. | 1:00 p.m.- 4:30 p.m. | | |
| Physical Sciences Library | 8:30 a.m.-12:00 noon | 8:30 a.m.-12:00 noon | closed | closed |
| | 1:00 p.m.- 4:30 p.m. | 1:00 p.m.- 4:30 p.m. | | |
| Rutherford Libraries | | | | |
| Rutherford North | | | | |
| Building open | 7:45 a.m.-10:00 p.m. | 7:45 a.m.- 5:30 p.m. | 1:00 p.m.- 5:00 p.m. | closed |
| Circulation Services | 8:30 a.m.- 6:15 p.m. | 8:30 a.m.- 5:15 p.m. | 1:00 p.m.- 4:45 p.m. | |
| Reference Services | 8:30 a.m.- 5:00 p.m. | 8:30 a.m.- 5:00 p.m. | no service | |
| Rutherford South | | | | |
| Periodicals Reading Room | 8:30 a.m.- 5:00 p.m. | 8:30 a.m.- 5:00 p.m. | closed | closed |
| Bound Periodicals Circulation | 8:30 a.m.- 6:15 p.m. | 8:30 a.m.- 5:15 p.m. | 1:00 p.m.- 5:00 p.m. | closed |
| Bound Periodicals Checkpoint | 8:30 a.m.- 6:15 p.m. | 8:30 a.m.- 5:15 p.m. | 1:00 p.m.- 5:00 p.m. | |
| Rutherford South Study Hall | closed | closed | closed | closed |
| John W. Scott Library | 9:00 a.m.-10:00 p.m. | 9:00 a.m.-10:00 p.m. | 9:00 a.m.- 5:00 p.m. | closed |

Notices

The Gift of Life

The Canadian Red Cross summer blood donor clinic will be held Wednesday and Thursday 16 and 17 July in the Central Academic Building - Cameron Library Passage. The clinic will be in operation from 11 a.m. to 2 p.m.

Statistical Consulting Laboratory

The President has provided funding for a two-month period for a statistical consulting laboratory to be operated by the proposed Department of Statistics and Applied Probability. This Laboratory is designed to provide University researchers with free statistical consulting. A service like this is provided at many universities; in Canada, these include the University of Toronto, the University of British Columbia, Queen's and Dalhousie Universities. If there is a favorable response to the service on this campus, we would hope to be able to provide statistical consulting on a more permanent basis.

The Statistical Consulting Laboratory will be open from 20 June to the end of August during the hours 10:30 a.m. to 12 noon and from 1:30 p.m. to 3:30 p.m. daily. The laboratory is housed in 605 Central Academic Building, and the telephone number is 432-3420. All members of the University community desiring statistical consultation on their research problems are invited to use this service.

String Pedagogy Workshop

Participants will improve techniques in playing instruments, violin, viola, cello and bass. The acquired techniques will be put into operation in a string orchestra. The non-credit workshop runs from 21 to 31 July, and a recital will be held later in the season.

Vocal Workshop

Individual instruction will be given in voice technique and vocal repertoire

(master classes) with emphasis on the German Lied and oratorio literature. Class instruction will be offered in areas of vocal diction, vocal accompanying and acting. Evening public performances will accompany the workshop. Dates to be announced at a later date. The Workshop runs from 14 July to 8 August, and will be counted for credit programs.

Positions Vacant

Administrative Professional Officer Office of the Registrar, APEL

The Registrar's Office invites applications for the position of Administrative Professional Officer (Liaison and Off-Campus Credit Courses) to commence 1 August 1980.

Reporting to the Assistant Registrar and Admissions Officer, the successful applicant will be involved in High School, College and Community Liaison with special emphasis on Admissions, Alberta Post-Secondary Education Transfers and Off-Campus Evening Credit Programs.

The position calls for a recent university graduate who is free to travel extensively throughout the province, willing to work some irregular hours and capable of working effectively with students, teachers, counsellors, High School and College Administrators, local contact persons and potential part-time adult Evening Credit Program applicants.

A background knowledge of the Alberta educational systems, ability to communicate effectively with the public, a valid Province of Alberta vehicle operator's license, and experience in the operation of audio-visual equipment is required. Some knowledge of the preparation and production of printed information and audio-visual material and training or experience in word processing would be an asset.

Salary commensurate with experience and qualifications with upwards of \$17,591 per annum.

Interested persons should apply in writing before 11 July 1980, giving full details of education, training and experience to W.A.D. Burns, Assistant Registrar and Admissions Officer, 128 Administration Building, The University of Alberta, Edmonton, Alberta T6G 2M7.

Positions Vacant

Non-Academic Positions

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, third floor, SUB, telephone 432-5201. Please do not contact the department directly. Positions available as of 4 July 1980.

Sales Clerk (\$830.15-\$893.47)—Bookstore
Clerk Typist II (\$830.15-\$991.42)—Central Stores; Sociology; Civil Engineering (Term)
Library Clerk II (\$830.15-\$991.42)—Extension—Legal Resource Centre (Trust); Music (Term)
Clerk Steno II (\$861.22-\$1,030.83)—Extension; Education—Student Records Office
Mail Clerk (\$893.47-\$1,069.05)—Housing and Food Services
Clerk Typist III (\$922.13-\$1,109.66)—Office of the Registrar; English
Clerk Steno III (\$959.16-\$1,157.44)—Educational Administration; Obstetrics and Gynaecology; Personnel Services and Staff Relations; Civil Engineering; Business Administration and Commerce (2 positions); Educational Psychology (3 positions); History
Medical Steno (\$1,030.83-\$1,257.77)—Psychiatry
Secretary (\$1,069.05-\$1,309.14)—Business Administration and Commerce; Audiovisual Media Centre; Devonian Botanic Garden; Physical Therapy
Library Assistant II (\$1,069.05-\$1,309.14)—University Archives
Administrative Clerk (\$1,069.05-\$1,309.14)—Nursing
Department Secretary (part-time) (\$602.61-\$742.37)—Slavic Languages
Department Secretary (\$1,205.22-\$1,484.74)—Introductory Biology Program; University Collections
Laboratory Assistant I (part-time) (\$415.08-\$446.74)—Surgical Medical Research Institute
Animal Assistant I (part-time, term) (\$430.16-\$515.42)—Surgical Medical Research Institute
Pharmacist (part-time) (\$742.37-\$921.54)—University Health Service
Audiovisual Assistant (\$893.47-\$1,069.05)—Educational Media—Extension
Building Services Worker II (\$959.16-\$1,157.44)—Housing and Food Services (2 positions)
Computer Assistant II (\$991.42-\$1,205.22)—Computing Services (2 positions)
Storeman II (\$1,030.83-\$1,257.77)—Chemistry

Building Services Worker III (\$1,069.05-\$1,309.14)—Physical Plant (2 positions)
Pool Operations Attendant (\$1,069.05-\$1,309.14)—Physical Education and Recreation
Technician I (\$1,069.05-\$1,309.14)—Soil Science (3 positions); Computing Services; Provincial Laboratory; Mechanical Engineering (Term)
Chemical Technician I (\$1,069.05-\$1,309.14)—Soil Science
Civil Engineering Technician I (\$1,069.05-\$1,309.14)—Civil Engineering
Animal Technician I (\$1,069.05-\$1,309.14)—Bioscience Animal Services
Audiovisual Technician I (\$1,069.05-\$1,309.14)—Technical Services—Audiovisual
Histology Technician (part-time) (\$1,109.66-\$1,365.29 full time equivalent)—Surgical Medical Research Institute
Control Centre Operator I (\$1,109.66-\$1,365.29)—Physical Plant
Offset Equipment Operator (\$1,109.66-\$1,365.29)—Extension
Building Service Worker IV (\$1,157.44-\$1,423.81)—Physical Plant
Computer Operator I (\$1,157.44-\$1,423.81)—Computing Services
Security Officer I (\$1,205.22-\$1,484.74)—Campus Security (2 positions)
Technician II (\$1,205.22-\$1,484.74)—Medicine (Trust)
Chemical Technologist I (\$1,205.22-\$1,484.74)—Home Economics; Chemical Engineering
Laboratory Technologist I (\$1,205.22-\$1,484.74)—Provincial Laboratory
Technologist I (\$1,205.22-\$1,484.74)—Immunology (Trust, Term)
Computer Operator II (\$1,257.77-\$1,550.43)—Educational Research Services
Programmer/Analyst I/III (\$1,257.77-\$2,195.45)—Administrative Systems
Editorial Assistant (\$1,309.14-\$1,617.33 Full-Time Equivalent)—Senate (Term) (part-time)
Art Technician Demonstrator I (\$1,309.14-\$1,617.33)—Art and Design
Electronics Technician II (\$1,309.14-\$1,617.33)—Chemistry
Technologist II (Textile) (\$1,365.29-\$1,690.17)—Home Economics
Administrative Assistant (\$1,365.29-\$1,690.17)—Business Administration and Commerce
Electronics Technician III (\$1,484.74-\$1,843.07)—Physics
Programmer/Analyst II (\$1,484.74-\$1,843.07)—Chemical Engineering
Engineering Technologist III (\$1,484.74-\$1,843.07)—Physical Plant
Programmer/Analyst II/III (\$1,484.74-\$2,195.45)—Administrative Systems (2 positions); Computing Services (3 positions); Printing Services
Programmer/Analyst III (\$1,763.03-\$2,195.45)—Computing Services
Programmer/Analyst III/IV (\$1,763.03-\$2,629.04)—Health Sciences
Computer Application
Engineering Technologist V (\$1,924.31-\$2,400.90)—Physical Plant

Part-Time Work Available During The Month of August

The Office of Community Relations needs tour guides to conduct scheduled walking tours of campus during August.

If you are interested in acting as a tour guide and are able to work Sunday afternoon and at least one afternoon during the week, please phone 432-2325. A guide is also needed for Sunday afternoons only. Some previous knowledge of the University would be a definite asset.

The following is a list of currently available positions in the University of Alberta Libraries. The bulletin board in the Cameron Library, Room 512, should be consulted for further information as to availability and position

Library Clerk III (\$893.47-\$1,069.05)
—Government Publications
Library Assistant I (\$959.16-\$1,157.44)—
Acquisitions; Bibliographic
Verification
Accounts Clerk (\$991.42-\$1,205.22)—
Library Support Services
Storeman II (\$1,030.83-\$1,257.77)—
Library Support Services
Library Assistant II (\$1,069.05-
\$1,309.14)—Cataloguing (Term)
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Advertisements

Advertisements must reach the Editor by 3 p.m. on the Thursday prior to publication date which date also serves as the deadline for cancellation of advertisements. The cost of placing advertisements is 20 cents per word for the first week and 10 cents per word for subsequent weeks ordered before the next deadline. Advertisements must be paid for in advance, and are accepted at the discretion of the Editor. We regret that no advertisements can be taken over the telephone. For order forms or further information, telephone 432-2325.

Accommodations available

For sale?? Too High?? Are most homes too high and the lots too small? Try this three plus bedroom home on 170' lot close to University of Alberta for only \$93,000. Call DeAnna Larson 481-0936 or Spencer Real Estate 436-5250.

For sale—By owner. Three bedroom, 1,260 sq. ft. bungalow in Terrace Heights on quiet crescent. Ten minutes from University. Large family kitchen. Developed basement. Carport and double garage. Asking \$96,500. 465-1116.

For sale—Condominiums, just one block from University. Two bedroom unit \$69,900; one bedroom unit \$59,900. 90% financing available. Spencer Real Estate 436-5250. Denise Rout 432-7398.

For sale—Huge, cedar, contemporary, 4,000 sq. ft., view property. Southwest, excellent financing. Call Liz Crockford 434-0555, Deanna Larson 481-0936, Spencer Real Estate 436-5250.

For sale—Lansdowne. Custom built bungalow, fully developed, fireplaces, open staircase, super decor, contemporary sun room. \$91,000 mortgage at 10½%. Call Liz Crockford 434-0555, 436-5250 Spencer Real Estate.

For sale—Lakefront cottage. Attrac-

tive, two bedroom, redwood cabin, recently renovated, 15 minutes southeast of city at Sunset Bay on Cooking Lake. Stone fireplace, beautiful view. 462-0748 or 922-4771.

For sale—Windermere view lot, \$110,000. Call Liz, Spencer Real Estate, 436-5250.

For sale—Two bedroom house near University. Revenue suite in basement. 434-4540.

For rent—Four bedroom house. 112 Street - 76 Avenue. Double garage, four appliances, private backyard. Available mid-July. \$650. 432-0806 after 5 p.m.

For rent—Room in comfortable co-op house, close to University. 428-4759 days, 439-3619.

For sale—Downtown area luxury condominiums—Two large condominiums, south exposure, all major appliances, wood-burning fireplace, sauna and pool common amenities. Excellent financing in place. Burns, Fry & Pape 428-0274, 464-6416 evenings.

For sale—Near University. Spacious, two bedroom bungalow. Excellent condition on large RC1 lot. Developed basement easily adapted to legal suite. Garage. Good assumable mortgage at 10¾%. Asking \$79,800. Evenings 436-3338. No agents.

For rent—1 September. Windsor Park. Executive bungalow, wonderful location, walking distance University, partly furnished, professionally landscaped, garage. Phone 1-252-2991 or write #1023, 6707 Elbow Drive S.W. Calgary. T2V 0E5.

For sale—Only \$34,500 for this immaculate, one bedroom condominium near University of Alberta. Appliances, assume \$20,000, 11% mortgage. Try 10% down with vendor to carry. Call Norman Realty 429-6284 or 487-6617.

To sublet—Hi-rise, one bedroom. Spectacular view. Two blocks University. September - December. K. Mazurek 432-5348.

Responsible person/couple to live in westend home during August. Catherine 432-6378.

For sale—Malmo, four level split. Excellent condition. \$117,000. 435-5601.

For sale—By owner. Windsor Park. 11902 89 Avenue. Three bedroom bungalow. 433-8524.

For sale—Do not wait as this home is one of a kind, with all the charm of an older home it has the conveniences of a new home. Charming living room with cozy fireplace, dining room, three bedrooms plus den. Basement completely developed with recreation room, bedroom, sewing room. Extras include sauna, vacuum system and double garage. For further information call Judy Davis 434-9646, LePage Melton 436-5080.

For rent—Furnished two/three bedroom house. Walking distance from University. 25 August - 31 May. \$500 monthly. Colin 432-3047, 436-6659.

For rent in Victoria—Three bedroom house unfurnished except for

appliances and drapes. Two fireplaces, 2½ bathrooms. Near University. No dogs. Damage deposit required. \$650 monthly. Available 1 August. 432-8922, 439-9506.

For sale—Two large condominiums. Architect's home plus former show home in Riverbend's Hearthstone Place. Luxurious with complete array of facilities and features. Burns, Fry & Pape. 428-0274, 458-6543 (after 5 p.m.)

For sale—Classy, comfy condominium (large Hearthstone townhouse). Finished basement with superb laundry/sewing centre. Sliding patio doors to appealing cedar deck bordering greenbelt. Only few steps to ravine. Call DeAnna Larson 481-0936, 436-5250. Spencer's.

For sale—Mill Creek Ravine, unique, two storey, three bedroom house. 1,400 sq. ft. Basement, garage. 69'x106'. 11½% mortgage. RC1 zoning. Phone 433-6002.

For sale—By owner. Lovely, semi-bungalow, South Garneau with fireplace, patio door, cedar deck and full landscaping. Recently redecorated, immaculate, developed basement, two bedrooms upstairs. Appliances and furniture available. \$78,000. 428-6842 weekdays, 436-2939 evenings, weekends.

For rent—House. Sherwood Park. Three bedroom, hillside bungalow, available 1 September. Large fenced yard, large garden. Washer, dryer, fridge, stove, dishwasher. Two bathrooms, sauna. Near shopping centre, schools. \$690 a month, one year lease. Children, no pets. Furniture could be arranged. Phone 467-1425 evenings after 6 p.m. or weekends.

Accommodations wanted

University instructor desires house or main floor of house near University Hospital. Two or three bedrooms. Garneau, Belgravia or Windsor Park preferred. 487-7869 evenings.
Rental accommodation wanted in Kelowna from August. Phone Madeline Bailey 437-5579 evenings, 427-2611 days.

Automobiles and others

1966 Citroen. Excellent condition. FM/AM stereo. 466-0496, 468-2925.
1978 Ford Van, perfect condition, full power, custom interior, 460 engine and trailer package. Call 988-5127.
1978 Dodge van. 30,000 kilometers. 436-6290.
1972 Ford Squire wagon. One owner. 58,000 miles. 466-5560, 432-3888.
For sale—1976 Pinto station wagon, 4-cyl., 4-speed, roof racks, trailer

Director

Fund Development

Required for The University of Alberta to provide leadership to the University community in fund-raising activities. Major responsibilities will be as follows:

- To develop the University's fund-raising capabilities;
- To develop contact with prospective donors;
- To cooperate with individuals involved with University fund-raising activities;
- To assist with specific campaigns;
- To work closely with administrative and academic officers.

The Director reports to the Vice-President (Finance and Administration) and the appointment will be initially for a two-year term.

Qualified applicants should have a successful record of fund-raising in an educational setting. A university education is desirable.

Interested persons should submit their Curriculum Vitae along with the names of three references and salary expectations by 25 July 1980 to the:

Secretary, Director of Fund Development Search
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University of Alberta
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Expert typing—theses, etc. 455-0641.
Donnic Typing Services Ltd. Specializing
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ations. 487-3053. 8903 180 Street.
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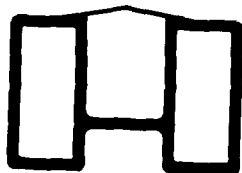
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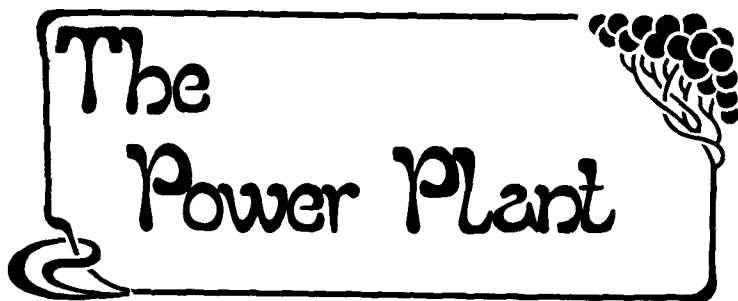


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The Provincial Mental Health Advisory
Council is now inviting mental health
research proposals.

Proposals relating to the
neuropsychological aspects of
delinquency and maladjustment in
adolescents will receive priority for the
September 11, 1980 submission deadline.

The deadline for submission to
other competitions are:

Continuing grants and
research scholarships January 16, 1981
New research grants September 18, 1981

To request guidelines
and an application form, contact:

**Executive Secretary
Research Committee
Provincial Mental Health
Advisory Council
10030 - 107 Street
EDMONTON, Alberta
T5J 3E4**

Alberta

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